

New York State Severe Weather Awareness Week April 30th to May 6th, 2017

Severe Weather Terms and Definitions

By: Kat Hawley
NOAA's National Weather Service

NWS Binghamton



Introduction to Severe Weather Awareness Week 2017

- Does Severe weather occur in NY?
- How many major events have occurred in the past?
- What is a Severe thunderstorm?
- What is the difference from a tornado and a wall cloud?
- What is flooding?
- How can I get weather information?

What types of severe weather are common to New York?

New York receives all forms of severe weather:

Tornadoes

Severe Thunderstorms

Deadly Floods

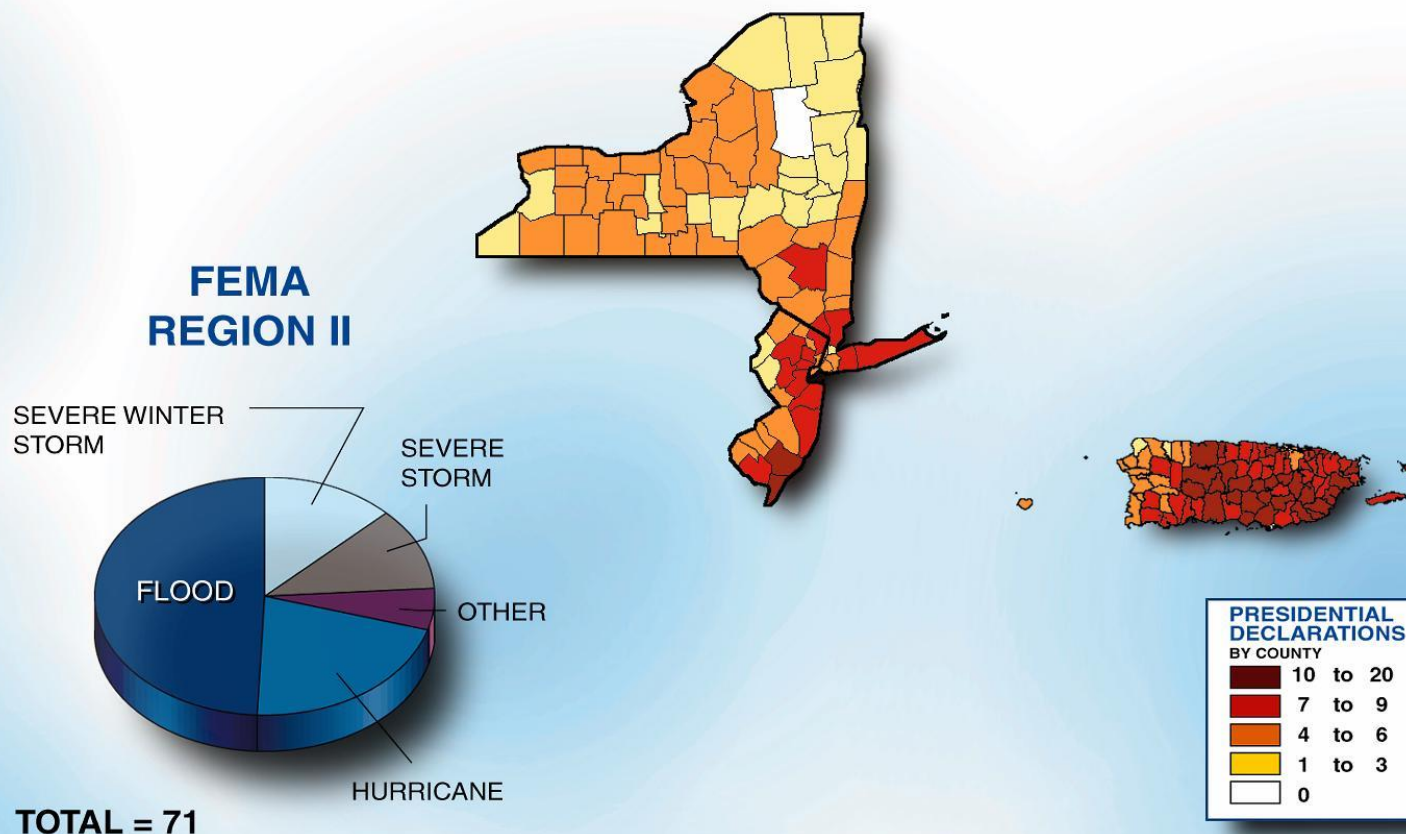


Why do we prepare for severe weather?

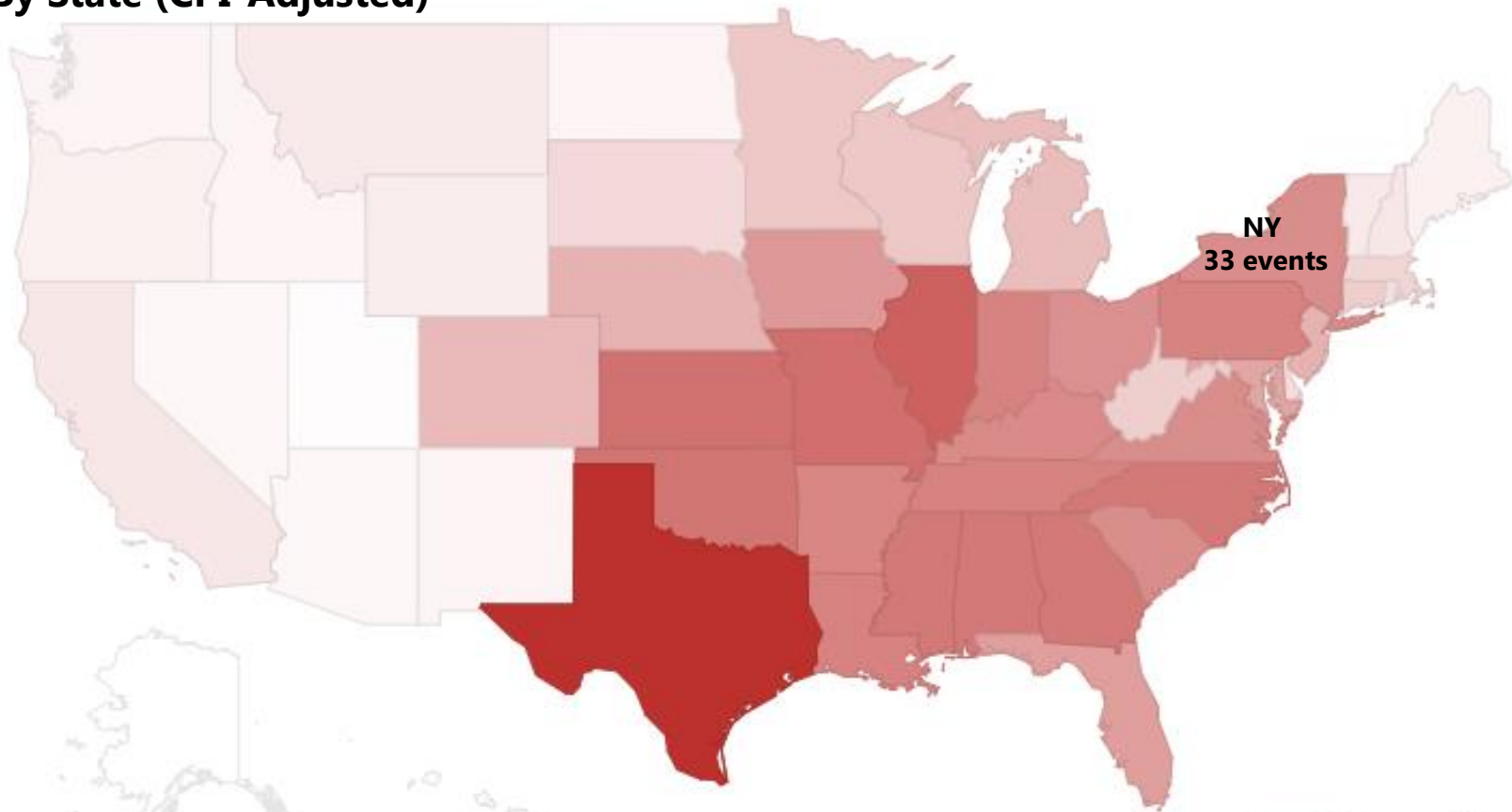
- **Several large severe weather outbreaks have affected New York.**
- **New York has received significant flooding throughout its history, many of which have been statewide.**
- **River flooding is of particular concern, with many floods devastating the state.**
- **More weather-related fatalities are caused by floods than by any other natural disaster.**

PRESIDENTIAL DISASTER DECLARATIONS

January 1, 1965 to December 31, 1998



1980 – 2017 Billion Dollar Flooding, Severe Storm, and Tropical Cyclone Disasters By State (CPI-Adjusted)



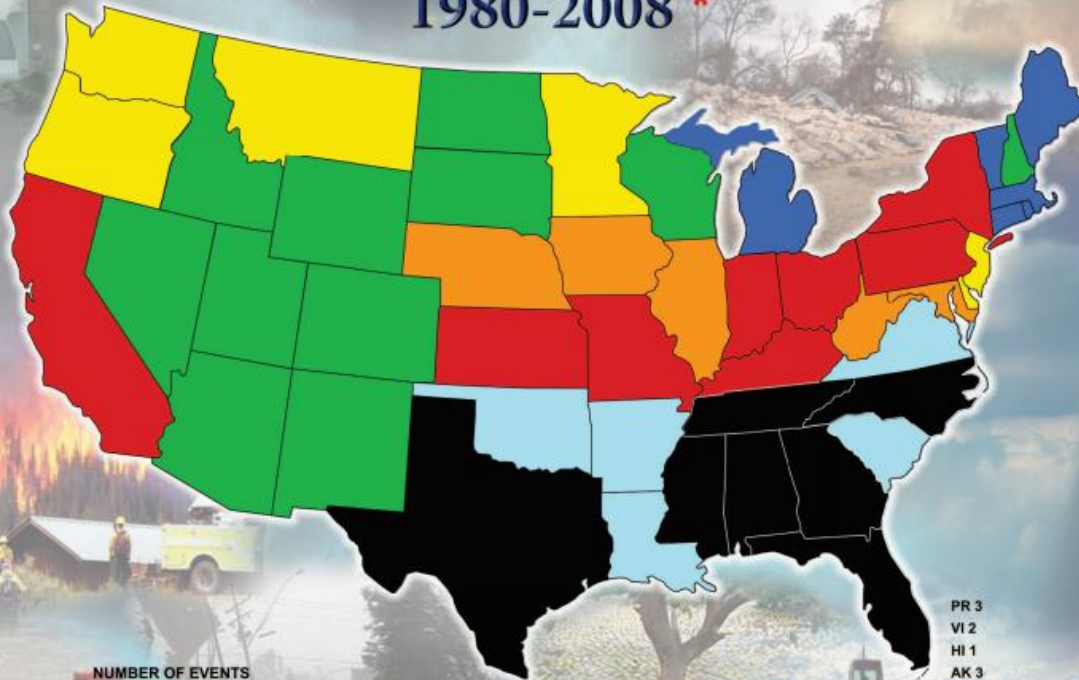
Please note that the map reflects a summation of billion-dollar events for each state affected (i.e., it does not mean that each state shown suffered at least 1 billion in losses for each event)



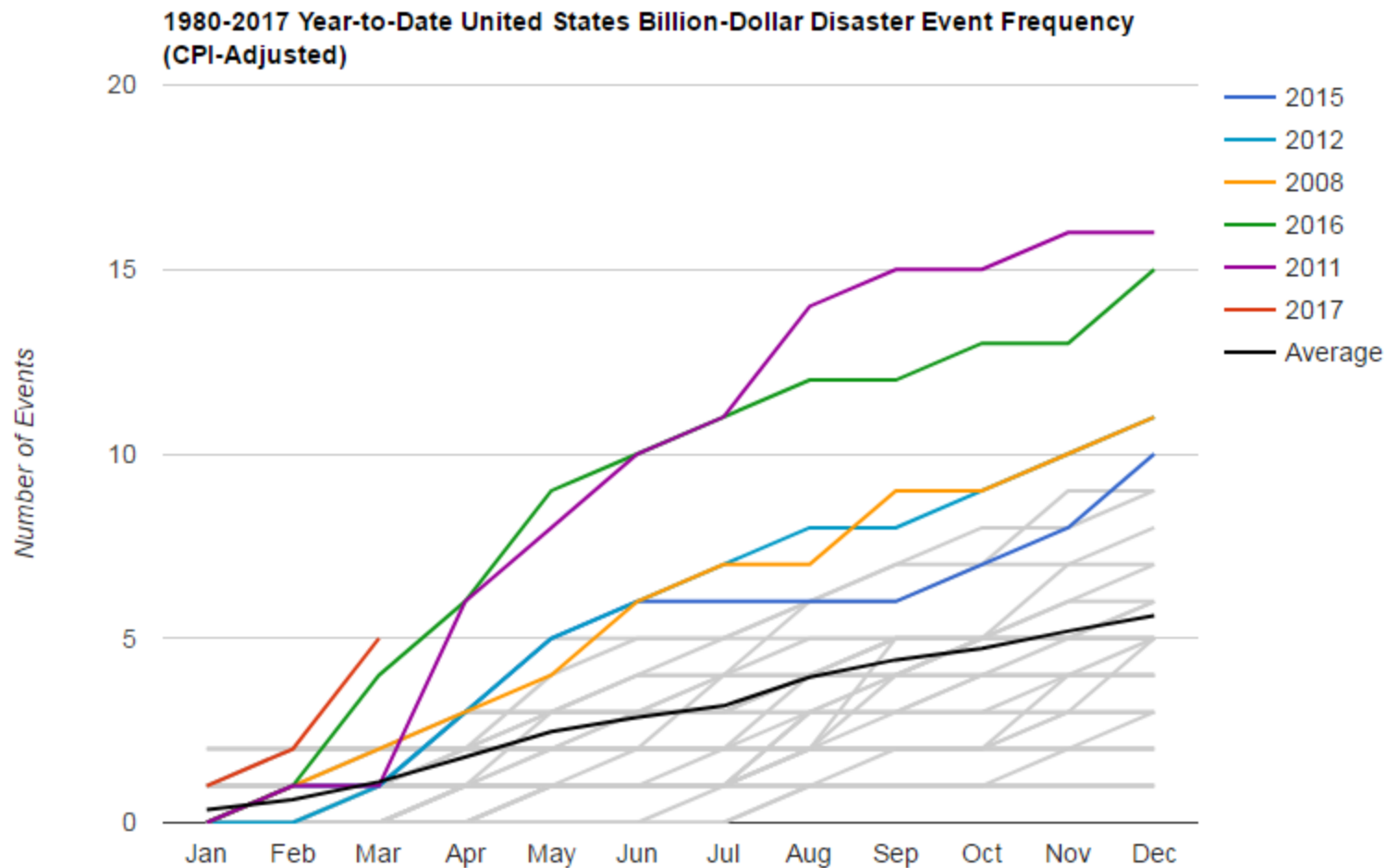
BILLION DOLLAR CLIMATE AND WEATHER DISASTERS



1980-2008 *



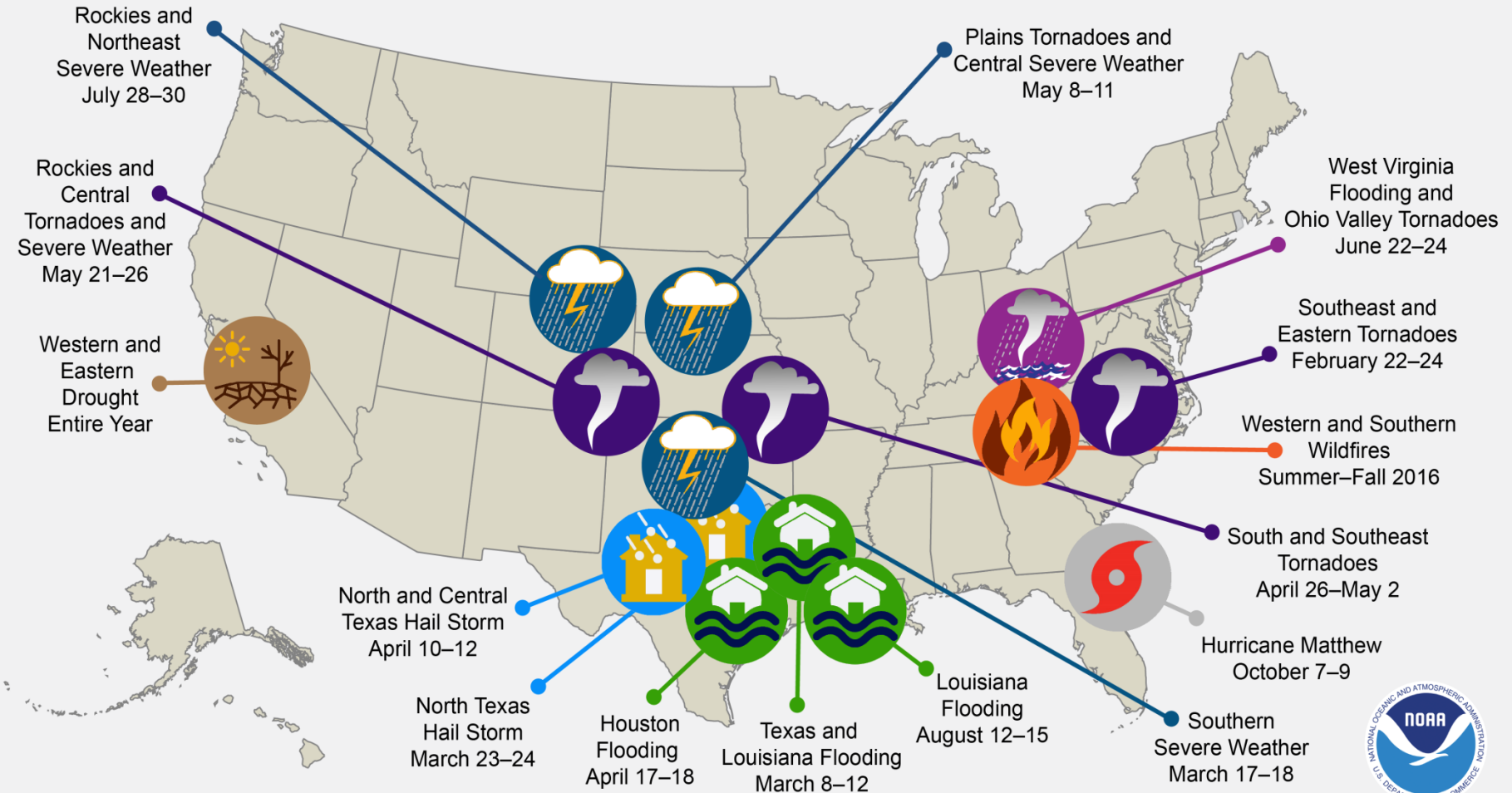
DISASTER TYPE	NUMBER OF EVENTS	PERCENT FREQUENCY	NORMALIZED DAMAGES (Billions of Dollars)	PERCENT DAMAGE
Tropical Storms/Hurricanes	27	30.0%	367.3	51.7%
Severe Weather	16	17.8%	33.7	4.7%
Heatwaves/Droughts	14	15.5%	180.2	25.3%
Non-Tropical Floods	13	14.4%	70.5	9.9%
Fires	9	10.0%	21.2	3.0%
Freezes	6	6.7%	18.6	2.6%
Blizzards	2	2.2%	11.9	1.7%
Ice Storms	2	2.2%	5.9	-0.8%
Noreaster	1	1.1%	2.2	-0.3%
	90		711.5	



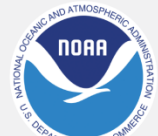
Event statistics are added according to the date on which they ended. Statistics valid as of April 6, 2017.

We are not alone...

U.S. 2016 Billion-Dollar Weather and Climate Disasters



This map denotes the approximate location for each of the 15 billion-dollar weather and climate disasters that have impacted the United States during 2016.



Severe Thunderstorms



A storm which produces hail 1 inch in diameter or larger and/or wind gusts 58 mph or stronger.



Tornado vs. Funnel Cloud



Tornado:

A violently rotating column of air pendant from a thunderstorm and in contact with the ground.



Funnel Cloud:

A rotating, funnel-shaped (typically) cloud extending from a thunderstorm base. A funnel cloud is attached to the cloud base and does not reach the ground. It exhibits rapid rotation and is most often smooth in appearance.



Flooding

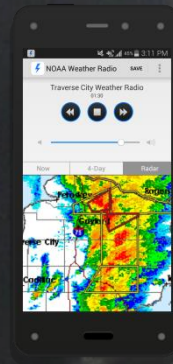
Flash Flood - A rapid rise in stream, creek and small tributary river levels, usually within 6 hours of a heavy rain event, or other factor such as a dam break or ice jam.

River Flood - A flood that takes longer to develop (more than 6 hours) and often days or even weeks in some instances. Occurs on the larger rivers and lakes of our area.



NOAA Weather Radio!

- Special radio with an audio alarm that goes off whenever the National Weather Service issues a warning for your area.
- Helpful, especially at night when you are not apt to be watching TV or listening to the radio.
- Affordable and can be bought at many locations
- Could be a life saver someday!



WATCH vs. WARNING

CAUTION

- Check the forecast often
- Monitor the skies
- Know where to take shelter

WATCH – BE Prepared!

Conditions are favorable for severe weather in or near the watch area. Watches are issued for tornadoes, severe thunderstorms and flash floods. Issued by the Storm Prediction Center

DANGER

- Take shelter immediately!
- Seek further information
- Monitor the forecast

WARNING – TAKE ACTION!

The severe weather event is imminent or occurring in the warned area. Warnings are issued for tornadoes, severe thunderstorms, flash floods and river flooding. Issued by NWS Binghamton for central New York and northeast Pennsylvania.